

REMARKS

Status of the Claims

Claims pending in the above-identified application are Claims 26-37 and 39-50. Claim 38 is cancelled. Claim 50 is new. Claims 26 and 46 are amended. The amended claims do not introduce new matter into the above-identified application. Support for the amended claims is found throughout the specification and specifically on page 11, lines 3-11. Support for new claim 50 is found on page 10, lines 9-22.

The Rejection Under 35 USC § 112

Claims 26-49 are rejected under 35 U.S.C. § 112, second paragraph, as failing to set forth the subject matter which Applicants regard as their invention. Respectfully, the rejection is traversed. Support for the scope of Claims 26 and 46 is found on page 9, lines 7-18. Specifically, “[t]his contacting can occur in a variety of ways, such as, for example, blending. Furthermore, each of these compounds can be fed into the reactor separately, or various combinations of these can be contacted together before being further contacted in the reactor, or all three compounds can be contacted together before being introduced into the reactor.” Accordingly, Applicants have support for the claimed invention. Therefore, Applicants respectfully request that the rejection of Claims 26-49 under 35 U.S.C. § 112, second paragraph, be withdrawn.

The Rejection Under 35 USC § 103

Claims 26-49 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,225,252 to *Ernst et al.* (“*Ernst*”). Respectfully, in view of the above amendment, this rejection is obviated.

The PTO states that *Ernst* teaches “a supported catalyst composition comprising silica, bis(trimethylsilyl)silanediybis(2-methylindenyl)zirconium dichloride and triisobutylaluminum.” However, Applicants respectfully point out that *Ernst* requires aluminoxanes and polyfunctional organic crosslinkers (col. 1, line 66

to col. 2, line 9, col. 3, lines 18-33, abstract, claim 1). See also Example 1 (col. 6, lines 33-43) and Example 2 (col. 6, line 65 to col. 7, line 8).

In stark contrast to *Ernst*, the claimed composition of matter is substantially free of aluminoxanes. The invention as claimed in Claims 26 is directed to a composition of matter which is substantially free of aluminoxanes and borate compounds and which comprises at least one solid mixed oxide compound and at least one of (a) at least one organometal compound, (b) at least one organoaluminum compound, or (c) a combination thereof. As claimed in Claim 46, the transition is “consisting essentially of.” *Ernst* neither teaches nor suggests a composition of matter consisting essentially of at least one solid mixed oxide compound and at least one of (a) at least one organometal compound, (b) at least one organoaluminum compound, or (c) a combination thereof. As claimed in new Claim 50, the claimed composition has a polymerization activity of at least 100 gP/(gS·hr) measured under slurry polymerization conditions using isobutane as a diluent, at a polymerization temperature of about 90°C, at an ethylene pressure of about 550 psig, and in the substantial absence of aluminoxanes and borate compounds. Again, *Ernst* does not teach or suggest that any catalyst composition disclosed therein has any activity whatsoever without the presence of aluminoxanes. Thus, *Ernst*, does not teach or suggest the invention as claimed in Claims 26-37 and 39-50. Accordingly, Applicants respectfully request that the rejection of claims 26-37 and 39-49 under 35 U.S.C. § 103(a) be withdrawn.

Conclusion

In view of the above remarks, Applicants respectfully assert that the rejection of the claims as set forth in the Office Action has been addressed and overcome. Applicants further respectfully assert that all claims are in condition for allowance and requests that an early notice of allowance be issued. If issues may be resolved through Examiner's Amendment, or clarified in any manner, a call to the undersigned attorney at (404) 879-2433 is respectfully requested.

No fees are believed due, however, the Commissioner is hereby authorized to charge any deficiencies which may be required, or credit any overpayment to Deposit Account No. 09-0528.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Jeffery B. Arnold", is written over a circular stamp. The signature is fluid and cursive.

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